



THE MICROVOLT

Publication of the Utah Amateur Radio Club
VOLUME XL ISSUE 3 **MARCH 1996**

**HAPPY ST.
PATRICK'S**



DAY



Vanity Calls Good News And Bad News

There is good news and bad news on the vanity call sign issue. The good news is Gordon Gorton, W6NLG, of the Sunnyvale, California VEC, says that he has heard from the FCC that the long-awaited vanity call sign form 610 V should be available this month.

The bad news? The FCC has received two more Petitions for Consideration on the provision of the Report and Order that prohibits a close family member from obtaining the call sign of a deceased family member unless they hold the same or higher class license.

Originally, the FCC did not include this provision in the Vanity Rules. They were persuaded to do so, and now this decision is being challenged.



It is possible that the FCC could dismiss the reconsideration request by saying that the issue has been decided. The problem is that if they do turn them down, those posing the latest challenge would then have the option of taking a decision against them into the federal courts. And that could tie the entire vanity call sign program up in litigation for years. (-World Radio Mag. Feb.)

Hail And Farewell

Unfortunately after quite a few years of dedication and perseverance to the club and to the Microvolt in particular, our dear friend and fellow HAM, Janet Worthington(K17DX) asked to be released from her position as Asst. Microvolt Editor. She will be missed as one of the club officers.

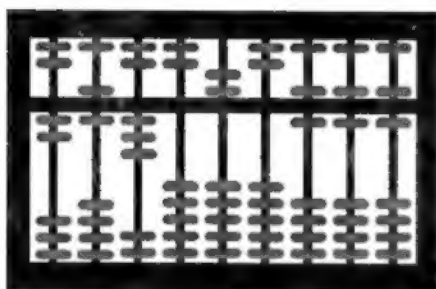
At the February Meeting Maureen Streckenfinger (KC7HOZ) was nominated to replace her. We are going to see if Linda Reeder might consider doing a Feature of The Month on Maureen so that we can get to know her a little. Good Luck Maureen.



PLEASE SEND DUES TO:
U.A.R.C.
c/o GARY OPENSHAW
861 ROOSEVELT AVE.
S.L.C. UT 84105

SEND TO:

Get your head out from behind your
mike and come out to March's



FEATURE OF THE MONTH

This month we are featuring Chuck Johnson WA7JOS. Chuck got into amateur radio in 1968 when he was attending Skyview High School in Smithfield, Utah. His electronic teacher is a ham and their high school had a club station. Chuck has his advanced license.

When Lon Stuart WM7E was the editor of the Microvolt, Chuck was the Braille editor. Chuck said it only took him an hour to put the Microvolt on disk and send it to the NFB. Now we send the disk to the Utah State Library for the Blind.

Chuck is the design engineer for Broadcast Television System. They manufacture products for television production studios.

Chuck has been elected UARC treasurer for 1996. Chuck would like to see more of the members participate in activities such as the steak fry, field day, and other activities throughout the year. Speaking of field day, that is Chuck's favorite facet of amateur radio.

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Chuck, Congratulations, we know you will do a great job.

-73 N7HVF **Linda Reeder**

Next month we will feature Maurine Strektenfinger, KC7HOZ, our new assistant Microvolt Editor.

JUST A GIGGLE OR TWO

- Man is a dogs idea of what God should be.
- If everything seems to be going well, you obviously don't know what you are doing.
- A stitch in time would have confused Einstein



Ham Hotline
(801) 583-3002

Tentative 1996 Schedule Update

MAR. 7: Clayton Clark(AC7O)on Propagation

APRIL4: Handi-Hams (Videos) Linda Reeder

MAY 2:Marvin Zitting (W7MR) on code/
contesting

JUNE 6: Field Day Meeting

JUNE 22 & 23: Field Day WHERE PENDING

JULY 13: Steak Fry (The Spruces) **NOTE DATE
CHANGE**

AUG. 2, 3, 4: WIMU Held at Olympia Park
Hotel, Park City

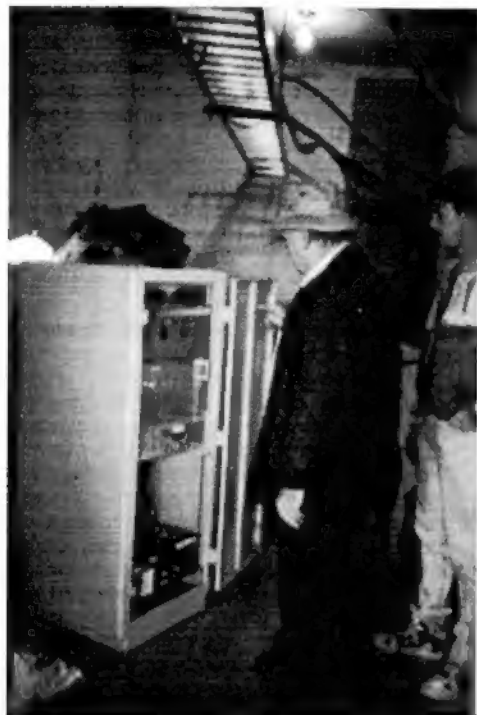
SEPT. 5: Swap Meet

OCT. 3: Planned- Vintage Radios (Not firm
schedule)

NOV 7:HomeBrew and Election Nominations

DEC. 5: Elections and Plans for The New
Year

Time Warp?



This is the Lake Mountain Repeater, we have only been here fifteen hours...but we haven't broken it any worse than it was!"-GS.K7HFV

This picture was taken about last Thanksgiving. I remember that because when Dave (KB7ZLH) told me that he would be home in two more hours and wasn't, I threw the turkey in the sink.

When relating this incident to Gordon Smith, he replied : " There is a strange phenomenon about the Lake Mountain Repeater that we call "The Lake Mountain Time Warp." You walk in the building at 10am., spend about fifteen minutes working, look outside and find it's dark. It's been going on ever since the repeater existed. I remember one of the earlier trips where someone asked, "When did you know that you were going to spend the night there?" The only answer that I could come up with was, "when we saw the sun rising." So Gordon told me, that I would have to excuse David, that he did not know about it.--Editor Cokie KC7MDV



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More WIMU '96

Remember that The 64th Annual Wyoming, Idaho, Montana and Utah Amateur Radio Convention (WIMU) for 1996 will be held August 2, 3, and 4 in Park City, Utah. For reservations you can call the Olympia Park Hotel at 1-800-234-9003 for reservations starting now. We have been given a special rate of \$62 per room, plus tax, single or double occupancy. Be sure to tell them that you are a part of WIMU to get the discount.

Camping reservations may be made with the Hidden Haven Campground (6 miles west of the hotel at the Kimball Junction exit of I-80) by calling 801-649-8935.

The hotel and campground hosts have suggested that reservations be made as early as possible due to the Arts Festival being held that same weekend. Some of the spectacular activities that have been scheduled for the HAMS and their families, are a multitude of forums and a lot of prizes. The forums include;

- Packet Radio
- Batteries
- QRP-low power Operation
- DX Operations
- Basic Radio Etiquette For New Hams
- Winter Driving Techniques By UTHP
- CW Operations
- ARES/RACES 72-Hour Kits
- Satellite Communications
- Antennas
- Radio Direction Finding
- MARS Emergency Reporting
- Electronic Test Equipment and Building Techniques
- HANDI- HAMS
- Ballooning and Amateur Radio
- ARRL Discussion With Visits From Headquarters

But in some earlier Microvolt did someone mention prizes? YEAH!

FIRST PRIZE- ICOM-707 HF TRANSCEIVER!

Other prizes that will be awarded at the Sunday Morning Brunch:

ALINCO DR-130T 2 METER MOBILE TRANSCEIVER

KENWOOD 22AT 2 METER HANDHELD MFJ-784B TUNEABLE DSP FILTER FOR ALL DIGITAL MODES, SSB & CW

POWER PLUS HL 35V 2 METER AMPLIFIER

TUCKER T-1000 ANTENNA TUNER FOR HF

TUCKER TM-3000 UV 100-500 MHz

CROSS-NEEDLE SWR/PWR METER

KATRONICS KPC3 PACKET TNC WITH GPS

DIAWA CN101 HF VSWR METER

BENCHER RJ-2 CHROME CW KEY

MFJ-1621 PORTABLE HF ANTENNA WITH BUILT IN TUNER FOR 10-40 METERS

MFJ-112 DELUXE WORLD MAP CLOCK

WELLER WLC-100 5-40 WATT SOLDERING STATION.

PREMIER RD-8 DUAL BAND ANTENNA FOR UHF/VHF 6.5" WHIP FOR HANDHELD

PREMIER RD-78 DUAL BAND ANTENNA FOR UHF/VHF 15" FOR HANDHELD

PREMIER SB-752 8.5 AH PORTABLE POWER PACK, DELINERS 3V, 6V, 9V, 12V

The registration packet that had been initially planned to be sent out last month has been delayed until **APRIL**. Also, Note: Duanne Anderson, our WIMU Chairman has a change in e-mail address. You can now reach Duanne at kj7ho@utah-inter.net

443 East Brandt Ct., #30

SLC, UT 84107 phone (801)288-1859

You can still visit our WIMU web page at

<http://www.xmission.com/~mistrall/WIMU96.html>

TESTING INFO

CORRECTED

UTAH AMATEUR RADIO EXAMINATION SCHEDULE

February 2, 1996

(For more details see the listing of "Programs by City" at the end.)

Date	Location	Contact Person	Home Ph.	Bus. Ph.
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02/03/96 (Sat.)	Salt Lake C.	Gordon Smith, K7HFV	582-2438	534-8116
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02/21/96 (Wed.)	Provo	Steve Whitehead, NV7V		
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465-3983 225-5200

02/27/96* (Tues.) Salt Lake C. Eugene McWherter, N7OVT 484-6355

03/06/96 (Wed.) Farmington Brent Thomas, AC7H 292-8110 539-3700

03/20/96 (Wed.) Provo Steve Whitehead, NV7V 465-3983 225-5200

03/26/96* (Tues.) Salt Lake C. Eugene McWherter, N7OVT 484-6355

04/06/96 (Sat.) Salt Lake C. Gordon Smith, K7HFV 582-2438 534-8116

04/17/96 (Wed.) Provo Steve Whitehead, NV7V 465-3983 225-5200

04/30/96* (Tues.) Salt Lake C. Eugene McWherter, N7OVT 484-6355

05/04/96 (Sat.) Ogden Matt George, AB7GM 627-6064

05/15/96 (Wed.) Provo Steve Whitehead, NV7V 465-3983 225-5200

Send additions or corrections to Gordon Smith, K7HFV

EXAMINATION PROGRAMS BY CITY

City: Brigham City

Contact Person: Bob Anderson, AA7TR

VEC: ARRL Phone: 257-3021

Location: Basement of Zion's Bank at Main and First North

Schedule: Twice annually, spring and fall. Details vary.

Code tests at 6 p.m. Written tests at 7 p.m.

City: Farmington

Contact Person: Brent Thomas, AC7H

VEC: ARRL 637 East 2150 South

Bountiful, Utah 84010

Home Ph: 298-3322

Bus. Ph: 538-3700

Location: Davis County Jail Complex,

800 West State St.,

Farmington

Service entrance

Schedule: First Wednesday of Jan., Mar., July, and Sept., 7 p.m.

City: Logan

Contact Person: Paul Hansen, WO7N

VEC: ARRL 1676 East 1600 North

Logan, Utah 84321

Home Ph: 752-5332

Bus. Ph: 752-6425

Schedule: Second Saturday of April and October, 9:00 a.m.

City: Ogden

Contact Person: Matthew George, AB7GM

VEC: ARRL 473 Hiland Road

Ogden, UT 84404

Phone: 731-7573

Recorded exam information: 627-6064

Location: Weber State College, Science and Technology

Building, Rm 228

Schedule: First Saturday of May and November, 8:00 a.m.

City: Provo

Contact Persons: Steve and Linda Whitehead

VEC: W5YI 497 South 700 East

Payson, Utah 84651

Home Ph: 465-3983

Bus. Ph: 225-5200

Location: Provo Campus of Utah Valley State College

Schedule: Third Wednesday evening of each month
 Notes: Do not confuse this location with the larger Orem campus.

City: Salt Lake City
 Contact Person: Gordon Smith, K7HFV
 VEC: ARRL
 632 University Street
 Salt Lake City, Utah 84102
 Home Ph: 582-2438
 Bus. Ph: 532-3400 Ext. 8116

Location: Blue Cross/Blue Shield Cafeteria
 2455 East Parley's Way
 Main (west) building, West door
 Schedule: First Saturday of Feb., Apr., June, Aug., Oct. and Dec.
 20 w.p.m.: 8:00 a.m. 13 w.p.m.: 8:30 a.m. 20 w.p.m.: 9:15 a.m.

No code test needed: Any time between 8 and 10 a.m.
 Notes: Preregistration is required. The owners of the building require that the door be kept locked. Those who preregister will receive the code required to get in. Preregistration also speeds the session and gets licenses on the way faster after the session. It takes only a few minutes by phone or on the air. Gordon usually monitors 146.62.

City: Salt Lake City
 Contact Person: Eugene McWherter, N7OVT
 VEC: W5YI
 536 E. Leland Avenue
 Salt Lake City, Utah 84115
 Home Ph: 484-6355

Location: Granite High Seminary Building
 Approximately 33rd South and 5th East
 Schedule: Last Tuesday of each month, 7 p.m.
 Notes: This session is intended primarily for those seeking Novice, Technician, or Technician-plus licenses. Only elements 1A, 2 and 3A will be administered. Pre-registration is required.

THINGS TO BRING TO TEST SESSION

1. Two forms of ID (if licensed, your original and one form of ID)
2. \$6.05 - Cash or Check.
3. A copy of your licensee, and or copies of your pending 610 form or certificate of credit along with the original.
4. You may bring a filled out 610 form or a form will be available at the test session.
5. Pencils or pens.
6. You may bring a calculator but you must show that it is not pre-programmed.

You may use a typewriter or lap top computer only if you make arrangements in advance.

Where Should I Serve?

(The relationships between several Amateur Radio Emergency Organizations: RACES, ARES, MARA, MARS)

Recently a group of radio amateurs in this state was discussing participation in emergency operations with

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several members of the group expressing concern about where they would want to serve in an emergency -- Would it be RACES?... or ARES? ...or perhaps MARA?, etc.

I've wondered about it myself. Maybe you have, too.

There certainly is no intent on the part of any of these organizations to encroach upon any other. But the very existence of so many choices creates conflict.

One thing is clear: the first priority for all of us-- and this is echoed by each of those volunteer groups -- is the welfare of our own families.

I'd like to paint a rough sketch of the missions and inter-relationships of each of these volunteer service. Let's start with

RACES - Radio Amateur Civil Emergency Service

RACES is an organization of amateur radio operators who volunteer to provide radio communications for state and local governments in time of an emergency. Created in 1952 primarily to serve in civil defense emergencies, RACES provides essential communications and warning links to supplement state agencies during emergencies.

RACES is a special part of the amateur operation sponsored by the Federal Emergency Management Agency (FEMA).

RACES provides emergency communication for civil preparedness purposes only. RACES operation is conducted by amateurs using either their primary stations or existing RACES station. In the event that the President invokes the War Emergency Power, amateurs officially enrolled in the local civil preparedness group would become limited to certain frequencies, while all the other amateur operations would be silenced.

In Utah, FEMA has delegated authority to the governor, who has empowered the State Division of Comprehensive Emergency Management to administer it. L. Brent Thomas, AC7H, 538-3700 (W) 292-8110 (H) is the state RACES Radio Officer, housed in the State Office Building in Salt Lake City.

In an emergency in Utah, RACES would coordinate communications between the various counties and the state government to ensure that all of our citizens have proper services.

RACES membership is available to all licensed amateur radio operators through registration with the State Radio Officer. For membership information call: 1-800-753-2858.

¹ FEMA Guidance For Amateur Civil Emergency Service, (CPG 1-15 MARCH 1991), pg. I-I

ARES - Amateur Radio Emergency Service

ARES is chartered by the American Radio Relay League (ARRL) and is designed to serve in emergencies under civil authority at the county level. In Utah County Sheriff's Office, which is the civil liaison to ARES.

As you read about amateur involvement with emergencies such as the Alaskan Earthquake, The Teton Dam collapse, Hurricane Andrew, The San Francisco earthquake and the Oklahoma City bombing, ARES is the organization at the forefront.

ARES is the ARRL-sponsored organization whose function is to provide local and regional emergency communications. Other groups are sponsored by government agencies, churches, and the military, but ARES is a case of amateurs organizing themselves. In each ARRL section (including the Utah Section) the ARRL Section Manager appoints a Section Emergency coordinator to oversee ARES. The Section is broken down into counties and/or regions, with its own Emergency Coordinator.

Activities of ARES, nationwide, are reported in the "Public Service" column in QST. ARES works closely with the Red Cross, Emergency Management, and law enforcement agencies. In a well run county, (and Utah has a few of these) ARES and RACES work together very closely with almost identical membership. In most situations they operate under the ARES banner. But if wartime powers should put regular amateur radio off the air, the same group can continue as RACES. The Statewide RACES nets (held on the third Thursday of every other month) encourage all RACES member to join local ARES groups for training.

ARES has been in existence since the early days of amateur radio (although it was formerly called AREC-Amateur Radio Emergency Corps.) It relies on another ARRL organization, the National Traffic System (NTS) to pass long-haul messages.

In an emergency ARES customers would be the local hospitals, city governments, BYU EOC, etc.

ARES membership is available to all licensed radio amateurs. Doug Nielson, N7PPW, is the Emergency Coordinator. For membership information call: Doug Nielson, 756-5927. In Salt Lake County contact: John Parken, KA7GZH at 278-5846

MARA - Mercury Amateur Radio Association

² The Mercury Amateur Radio Association, MARA, is an association of amateur radio operators with a common

¹ Gordon Smith helped with ARES information.

² Mercury Amateur Radio Association (MARA) Operator's Manual, July 1989, pg.11

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interest in working together to provide world-wide emergency communication.

MARA's mission is to organize and operate a world-wide emergency communication system. This suggests the following objectives:

1. Establish network guidelines, policies, and procedures.
2. Complement, but not duplicate existing amateur radio networks.
3. Provide information and training to member amateurs.
4. Seek out interested amateurs world-wide.
5. Provide those with a common interest a place to meet.
6. Establish appropriate coordination with the sponsoring and affiliated organizations.

In Utah, MARA has stated an objective to coordinate evacuation centers in time of emergency and to assist in locating lost individuals.

For membership information call: Willie Peake, N7VVL 466-1114

MARS- Military Affiliated Radio System

MARS has four branches: Army, Air Force, Navy, and Marines. All but the Marines are active within the state of Utah. Army MARS is probably the most active here.

MARS is based on the

³ need for a pool of trained radio operators in time of mobilization. ...The mission of Army MARS is to-

1. Provide DOD-sponsored emergency communications on a local, national and international basis as an adjunct to normal communications.
2. Provide auxiliary communications for military, civil and/or disaster officials during periods of emergency.
3. Assist in effecting normal communications under emergency conditions.
4. Handle morale and quasi-official record and voice communication traffic for Armed Forces and authorized U.S. Government civilian personnel stationed throughout the world.
5. Establish programs to create civilian interest, recruit qualified volunteers, and furnish appropriate training in military communications equipment, techniques and procedures.
6. Initiate efforts to attain improvements in high frequency (HF) and very high frequency (VHF) radio and computer systems operating techniques and state-of-the-art technology through experimentation and testing.
7. Conduct an appropriate military or amateur radio exercise as a part of the annual celebration of Armed Forces Day.

³ Headquarters Dept. of The Army, Field Manual(FM 11-490-7), Military Affiliate Radio System (MARS), 21 July 1986, PG. 2-1

8. Operate and maintain a MARS HF radio facility known as station WAR in support of Headquarters Department of the Army.
9. Provide a potential reserve of personnel trained in military communications.

Membership in MARS

⁴ is limited to--

1. Individuals who are --
 - Fourteen years of age or older...
 - Citizens of the United States...
 - Willing to operate within the regulations prescribed...
 - In possession of a radio station capable of operating on two MARS HF frequencies and is a valid FCC-licensed amateur radio operator.

MARS members are issued a MARS military station licensed and are assigned a special MARS call sign. MARS operates outside the amateur bands on specially allocated frequencies. For membership information call: Dave Raab 225-4128.

In time of regional or local emergency, such as the San Francisco earthquake, ham bands become jammed with people trying to obtain information and become virtually unusable. MARS frequencies, on the other hand, remain open.

Utah Army MARS operates three HF nets each week and a VHF repeater near Camp Williams which gives coverage from Provo to Ogden. Two VHF nets are conducted each week on this repeater, just outside the two-meter band. MARS also owns a digipeater which will soon be returned to local service.

These resources, outside the amateur bands, could provide vital links in an emergency.

So there you have it. Each organization has a distinct mission, yet all work together to make a blanket of services.

The specific roles of these organizations are still being defined at the state level. It seems that the better the definition of their relationships and missions, the less you feel the conflict of where to serve.

Currently the leadership of these organizations within the State meet on a bimonthly basis to coordinate their events by sharing ideas and concerns and discuss how each group operates, both individually and collectively.

It is important for each individual to determine for himself where his priorities are and which amateur service best fits those priorities. Decide now, before an emergency comes, where you want to serve and become active in emergency preparation and training.

⁴ Ibid., pg. 4-1

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TERT-Timpanogos Emergency Response Team TERT was organized in 1983 to assist hikers and climbers on Mt. Timpanogos. TERT is composed of an all volunteer group of emergency medical technicians (EMT), climbers, amateur radio operators and runners. In teams of four or more they maintain a camp on the mountain each weekend starting around the beginning of June and ending in September. The team functions under the auspices of the Utah County Sheriff's Office and the U.S. Forest Service, Pleasant Grove Ranger Station. Each team consists of an EMT, a climber, a radio operator, and a runner.

The Team uses Life Flight and AirMed helicopter services and Utah County Search and Rescue for evacuation of injured. The Team does not leave the mountain with an injured person. They stabilize and wait for evacuation.

Prior to TERT, the popular wilderness hiking area on Timp had several fatalities each year. There has not been a fatality in the area the Team oversees when the Team has been on the mountain.

Many lives have been saved and potential serious injuries diminished.

All you need as a ham is a two-meter handheld, extra alkaline batteries, a half-wave telescopic antenna, food and backpacking equipment for the weekend.

For more information about TERT, contact Glen Meyer, KD7YU, at 375-4074, or Steve Whitehead, NV7V, at 465-3983.

(This article was originally prepared by Mike Lawyer, N7PZA, as a training item of the 28 January ARES training net. It has been modified by Cokie Eddy KC7MDV with help from Gordon Smith to bring the information as current as possible.)



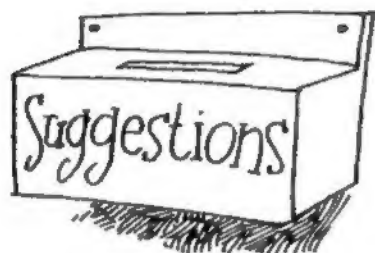
FOR SALE

**2 YAESU 70 CENT. 2 METER
RADIOS**

**MODEL FT51R \$390 each
retail \$480.00 bought \$450**

**Original box w/battery charger,
battery
stand, SW power
6 months old**

Steven and Jennie Wright
943-9692



Welcome

BY JOHN DINKELMAN (DINK KC7AW)

I'M A HAM, NOW WHAT?

I attended the UARC HAM classes and memorized the questions and after several tries I finally passed the NOCODE test and after waiting an eternity finally got my very own call letters! I saved up my money and finally got a two-meter radio and can communicate with some of my friends on the air! I can communicate! I am a communicator! BUT is that all that HAM radio is about?

Yes, you are a HAM. BUT so far you have only touched the surface of this wonderful service. You ARE a communicator but you have yet to experience the adrenaline rush that you get when you hear for the first time, a Russian UC3 or a Cape Verde D44, or some other foreign station, call your very own call letters, a thrill that is hard to describe.

You have yet to experience the enjoyment of handling messages or phone patches for other HAMS on the lower bands. Or just getting on the bands and rag-chewing with other like you all over the world. You have yet to try Amateur Television or Radio Teletype or County Hunting or work for a DXCC (Distance Cross Country) Award. Now, I admit, maybe not all of these things would interest you, but there is so much more to amateur radio than VHF.

I congratulate you new HAMS that have been very (*repeat*) **VERY** active in ARES, RACES, MARA and UARC. You have been a very welcome infusion in our service, but don't stop now. Upgrade while you still have the enthusiasm and interest. Don't become bogged down and just satisfied to be a communicator. There is so much more waiting for you in The Wonderful World Of Amateur Radio.
 Welcome On Board!

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Dink, KC7AW

If you have any suggestions for the MicroVolt, or what you would like to see at meeting, there is a suggestion page on the back of this Microvolt. Return it to me and I will bring these suggestions up at the meeting!

QRP CORNER



ATTENTION

QRP's!

**ANNOUNCING
 1996 ARCI
 BANQUET!**

**THE
 QRP**

This annual Dayton Hamvention Event will be held on Friday, May 17 1996, 7:00 p.m. at the Days Inn of Miamisburg, Ohio. An appetizing sit down dinner will be followed by a special guest speaker and the awarding of many door prizes.

Advance tickets required at "True QRP" cost of \$13.00. Tickets will be available starting Feb. 1, 1996 from Pete Meier, WK8S.

Check or money orders, including a SASE, should be made out to Pete Meier, 4181 Rural, Waterford, Michigan 48329

See you there!

Door prize donations needed. Please contact Pete Meier (WK8S)

Editor's NOTE: Please contact the Microvolt Editor for other QRP corner submissions. I want to keep this corner going, but I will have to go through OLD MICROVOLTS for OLD QRP stuff if I cannot get the help of the readers! Thanks and 73 de Cokie, (KC7MDV)



Something In The Air That Moves Me!

-Gordon Smith (K7HFV)

It's nice to have a good transmitter and a good antenna, but how does your signal really get to Joe across town? Or to Sam in Cleveland? Or, for that matter, to Vladimir in Vladivostok? There will be a chance to find out at the UARC meeting on March 7.

Our program at the March meeting will feature UARC member Dr. Clayton Clark, AC7O, speaking on propagation. He will be telling us how to pick the right band and time for any communication of choice. He will tell us how propagation is affected by incidence angle and sunspot numbers. We can find out why the bad years for ten meters may be the good years for 160.

Not interested because you can only work VHF? Surprise!

Propagation phenomena aren't as static on VHF as you might think. Learn about tropospheric effects and what happens when a thermal inversion is present. And a particularly interesting propagation mode is available to users of six meters.

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Clayton did his doctoral dissertation at Stanford on a type of propagation known as "Sporadic E," so it's sure to be one of the topics he will cover. Sporadic E is a bit of a mystery mode --no one really knows what causes it. But there is no shortage of theories, and he will tell us about some of them. One nice thing about sporadic E is that it appears to pay no attention to the sunspot cycle. It still works just fine in the low solar periods such as the current ~~time~~.

Dr. Clark is a Professor Emeritus at Utah State University where he has taught antenna theory and electromagnetic wave behavior for fifty years. He is quite possibly the most respected authority on these topics in the state. This is a meeting you won't want to miss.

The meeting will be March 7, at 7:30 p.m. There will be the usual newcomers' meeting at 7, along with books to buy and friends to greet. See meeting place details found elsewhere.



Can You Top That?

I know that I haven't been a HAM for a very long time, but I have been doing my homework. I was given a slug of old MicroVolts from Dink KC7AW this week and I found this real nice column that looks like someone has put on a shelf and totally forgotten. It was originally started by the 1992 Microvolt Editor, Richard Evans. (N7PCE) The column is dedicated to the humorous and sometimes embarrassing events in our lives. These events can be factual (very often stranger than fiction), apocryphal (leaving room for plenty of scrutiny), or downright fictional (just try to outdo fact) The only ground rule is to tell the story on yourself so as not to cast doubt on the sterling character of any fellow HAM. Come on now, each of you has a favorite story to tell, or a story that you wish would not be told. This is your chance to set the record straight in defending your honor.

It is being brought back and this first article is reprinted by permission until we can get some new submissions.

My grandmother remembered when Heber City got electricity. It was a grand and memorable event, and to the day she died, electricity held an unmistakably mysterious character to her. I was just old enough to understand a simple electric circuit, and knew how to strip wire with my teeth. My No. 6 dry cell was my friend. But I soon tired of bench top experiment. I craved a practical application for my vast knowledge of D.C. Circuitry. So I amassed my twisted pair bell wire, and set out in typical fourth grade confidence to erect a DEPW line, the Distance Early Parent Warning line, to electrically announce the impending presence of either my father or mother. Since secrecy was important to the success of the DEPW line objectives, I waited until my parents were gone for the evening. I was too young to drill holes in the basement stairs leading to my bedroom, so I neatly tucked the bell wire behind the carpeting from the door at the top of the No. 6 cell and light bulb DEPW annunciator system below. While I was fashioning a crude, oh so very crude, switch to fasten to the basement door, my grandmother inquired about my activities. I explained about the DEPW line which she just took in stride. It wasn't until I mentioned that the system involved the use of electricity that she became alarmed about the alarm. The fact that there were two orders of magnitude difference between my circuit voltage and normal house wiring did not explain in my mind the two order of magnitude increase in her excitement about my project. She threatened to call the constabulary to save my life, and no explanation on my part would dissuade her. The matter was ultimately resolved, the wire rewound, and the annunciator dismantled, not because of police intervention, but by inability to manufacture a satisfactory door switch! 73 de N7PCE Richard Evans

UARC WEB PAGE ADDRESS!

<http://www.xmission.com/~UARC>

If you would like to put anything on our web page contact John Buttles at the above address.

OOPS!
WE GOOFED!

Please note the following corrections! We are very sorry to inform you that I am beginning to believe that Lon Stuart's Gremlins must have attacked the MicroVolt again! (Real people

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couldn't make as many mistakes as this new Editor!)

- **The Steak Fry is going to be held where it always is, however the date in the last MicroVolt says the 20th. It is in fact going to be on the 13th as planned. Somehow, these Gremlins, must have changed the typeset before the MicroVolt went out...**
- **The Field Day is not going to be at Wolf Creek Pass...that is in Colorado. If we were to go to Wolf "anything" it would probably be Wolf Creek Summit, but as of this writing our Field Day Committee has not even met, so let's count on just waiting and finding out what they have to say before I put anything else in the MicroVolt. I will keep you informed.**

-Editor and Lon Stuart's Gremlins



Dear Cokie,

I was happy to see the Microvolt back in regular publication. You are doing a fine job and I'm certain I speak for many when I say we really appreciate it. Thank you so much and keep up the good work.

I was absolutely elated to find such a large section devoted to direction finding. Especially the circuit for the Handi-Finder. I wanted to point out that the fellow who wrote the article on the Handi-Finder only offers a partial kit. To the best of my knowledge, that kit only contains the p.c. board, the I.C., the resistors and the caps for a whopping \$29.95 plus shipping. There are also others offering partial kits for \$24- \$29 dollars plus shipping.

(The following looks almost like it could be an ad! But if you are still interested read on!-Ed)

On to the purpose of my letter. It is a little known fact that the Handy Finder, a product I sell and demonstrated at the May 1995 meeting, is virtually the same circuit. There is a major difference though, the price! Handy-Finder Kits are only \$18.00 each plus shipping when purchased individually. If the club were to get 10 to 29 people together the price drops to \$16.00 each and includes shipping and C.O.D. fees.

Also Handy-Finder Kits purchased from me are complete. Each kit comes with Professionally etched P C Board, the I.C., the resistors and the caps just like the more expensive partial kits, but also includes the switch, the battery clip, the coax cable, the BNC connector and pre-formed stainless steel antenna with mounting lugs and hardware. The only other thing you need is a 9v battery and a piece of PVC pipe (optional) if you want a handle. This is the only complete kit available at any price

I just wanted to send this little reminder
Sincerely,
Stephen Douglas (N6TLD)
UARC Member in Good Standing

When I start getting a lot of mail, and the shock wears off from all these good numbers that I am getting from people, I promise that I will stop putting them in the Microvolt. (Hi) Thanks-Cokie

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supports the 146 90 repeater and conducts a net there Tuesdays at 7:30 PM. They also support the 146 82 repeater. The contact person is Jerry Peters WA7ADK who can be reached at 825-8798

The VHF Society is a group dedicated to maintaining a system of repeaters in our area. Dues are \$10 00 per year and can be sent to P O Box 482 Bountiful Utah 84011-0482 The VHF Society holds a swap and traffic net for it's members each Tuesday night at 8.00 P.M. on the 146 940 repeater. For further information please contact Eldon Kearn KB7OGM at 571-9955

Salt Lake County ARES (Amateur Radio Emergency Services) conduct a net each Wednesday Night at 8 00 PM on the 146 88 repeater. All amateurs are welcome to participate Their in-person meeting is held the third Wednesday of each month. For more information please contact John Parken, KA7GZH at 278-5846 or Richard Evans N7PCE at 265-9346

Utah Valley ARES holds their general meeting the 1st Tuesday of every month at 7:00 PM. They also

Utah Area Amateur Radio Groups

UARC or Utah Amateur Radio Club meets the first Thursday of each month except the months of July and August. The meeting is held in the Theatre Building located on the Salt Lake County Fairgrounds (5200 S. and 200 E.) just south of Murray Park at 7:30 PM. There is a newcomer's meeting held prior to the main meeting at 7:00 PM

The Davis County Amateur Radio Club meets the 2nd Saturday of each month at 10 00 AM at 140 E Center St (council Room), Clearfield, UT. They meet in the downstairs auditorium on the north side, members and nonmembers are welcome. Dues are \$15 00 per year and can be paid at any club meeting. The Davis Club supports the 147 04 repeater. DAVIS ARES conducts a net each Thursday at 7:00 PM on 147 42 simplex. They also have a DAV node for packet on 145 07. For further information please contact Bill Spatz (Spots) KB7OKD at 774-8772

OARC or Ogden Amateur Radio Club meets the 3rd Wednesday of each month in Ogden at 7:00 PM. The meetings are held at the Red Cross building at 2955 Harrison BLVD. Members and nonmembers are invited. Dues are \$15 00 per year and can be sent to P O Box 3353, Ogden, Utah 84409. OARC

conduct a net each Tuesday at 9.00 P.M. on the 147 34 repeater which is also linked to the 224 7 repeater. The contact person is Robert Earl N7EGG at 225-8870

MARA or Mercury Amateur Radio Association is a world wide group of Radio Amateurs dedicated to training and traffic handling for emergency operation. They conduct VHF nets each Wednesday at 9 00 PM. They

also conduct health and welfare traffic net on 3 873 Mhz (80 meters). The Salt Lake area is on the 146.74 repeater and their contact person is Willy Peake N7VVL at 466-1114. The Ogden area is on the 145.49 repeater and the Provo area on the 145.37 repeater with Vince Newmeyer N7MLP at 785-5611 as their contact person

UPRA (Utah Packet Radio Association) holds their general meeting on the 2nd Saturday of each month at 2:00 PM at the State Capitol Annex Building north of the State Capital. All amateurs are welcome. The purpose of the club is to educate people who are new to packet and to coordinate

packet activities. Their dues are \$15.00 per year and can be sent to P O Box 92 Riverton, UT 84065. Their contact person is Jack Christensen, KC7NX at 277-6629.

UBET (Utah Box Elder Thiokol) holds a net every Wednesday at 8:00 PM on the 145.43 repeater and the 149.29 repeater. This net is followed by a CW net at approx. 8:30. Net control is Bob Anderson, AA7TR. They also meet the first Thursday of every month at 7:00 PM in the basement of the Zions Bank on the corner of main and first north in Brigham City. Their contact person is John Holland N7XLO at 282-1328.

THE BRIGERLAND AMATEUR RADIO CLUB meets the 2nd Thursday of the month (except June, July, and August) in the basement of the Sheriffs Office. They hold a net at 9:00 PM on the 147.20 repeater every Tuesday. Their contact person is Dean Stevens N7WVY at 753-2664.

THE UTAH TCPIP Users Group Of UTUG is an informal group that discusses TCPIP protocols and other packet information. They are geared to all levels of users, new and seasoned. They hold a



Just When You Thought ATV Was An All-Terrain Vehicle ...

Did you miss out on the February meeting? I sure hope not, because Clint Turner and Dale Jarvis did an outstanding presentation on Amateur TV. It was fun and especially informative. And with the door open it was exceptionally C-O-L-D! At one point in the evening, when Clint went to fix the antenna, I figured that either he had got up on the roof, a car or something, because the cable

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weekly net Sundays at 8:00 PM on the 146.620 repeater. Their contact person is Matt Simmons KG7MH at 965-1038.

The High Valley Net from Heber meets every Monday at 9:00 PM on the 147.18 repeater. Their contact person is Doug Neilson, N7PPW at 756-5927 or Joe Chenworth, KG7GY at 564-3598.

The University of Utah Radio Club is open to University Staff, alumni and students. There is a fully equipped station available 24 hours a day. Their contact persons are Marvin Match KA7TPH at 581-4896 or Clint Turner KA7OEI at 355-1534.

The Salt Lake Community College Amateur Radio Club is open to anyone. They would like to welcome interested parties to join them. They meet on the South campus in room N285 on the first Saturday of the Month at 3:00 PM. Please contact Keith KI7SL at 957-3247.

If there are any mistakes in here please send corrections to the MicroVolt Editor or call me at 280-1762- Thanks Cokie -Editor

looked like some large bird had swooped down and carried him away, antenna and all.

Clint and Dale told some of us that know nothing about ATV, what it was all about. Others of you that have been waiting to hear more new news on the KA7OEI ATV-front (versus homefront), just wanted to know "When? And what can we do to help?"

Clint and Dale are going to give you more information soon, but for now, here is a list of the things they will need and a small story that Clint had written for a February, 1993 issue of the MicroVolt.

Thanks-Ed KC7MDV

ATV in Utah

by Clint Turner

In recent years, there has been a dramatic upsurge in Amateur Television (ATV) activity in this country. This has been largely a result of the "home video explosion" that has armed a significant portion of the populace with camcorders. Receiving many ATV signals is no longer the technical challenge that it once was, either, since most TVs and VCRs of recent manufacturers are "cable ready" and will thus directly receive them with the addition of a decent antenna. Who does what on ATV? To start, you can do anything on ATV that you can do on

"normal" voice communications. Since the medium has a visual component, there are other possibilities as well.

Not only can you see the part with whom you are conversing, but you can also be more creative with the video medium. For example, on ATV you not only show yourself, but you can give other people a glimpse of your shack (unless yours looks like mine...) or even show anything that you may have done on videotape (within reason, of course)

In addition to this, ATV has been used to cover public service events (it covered the Rose Parade in 1989 and was distributed worldwide via satellite,) people here have put ATV transmitter (and cameras) on model rockets, R/C models, high altitude balloons, and on themselves to show others what they see while they are sky-diving. Furthermore, in many areas, operators of ATV systems go through the trouble of carrying the NASA Select space shuttle feeds; both video and audio.

We are looking for the following pieces:

- Helix and connectors (1/2" and 7/8" helix)
- 19" rack panels and enclosures
- Leads on two 7-foot, 30 inch deep rack enclosures with front and rear doors.

We are looking into having a remote-controlled camera up there and that a weatherproof camera enclosure (and a color CCD camera - possibly from a camcorder with a dead tape drive) is being sought.

We're working on a more in-depth how-to article (with drawings) for later issues of the Microvolt. (More next month as well!)

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If you would like to help with



*Field Day contact our field Day
Chairman Ray Allen (N7TEI) at
593-0949*



*"It should be Fun!" Never quote
famous last words.*

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The Utah Amateur Radio Club was organized under its present name in 1927, although its beginnings may date back as early as 1909. In 1928, it became affiliated with the American Radio Relay League (club #1602) and is a non-profit organization under the laws of Utah. It holds a club station license with the call W7SP, a memorial call for Leonard (Zim) Zimmerman, an amateur radio pioneer in the Salt Lake City area. The club meets each month except July and August. The meetings are held on the first Thursday of each month at 7:30 PM in the Exhibition Hall located on the Salt Lake County Fairgrounds just south of Murray City Park. Club membership is open to anyone interested in amateur radio; a current license is not required. Dues are \$13 per year, including a MICROVOLT subscription. Those living at the address as a member who has paid \$13 may obtain a membership without a MICROVOLT subscription for \$9. ARRL membership renewals should specify ARRL Club #1602. UARC maintains the following repeaters: 146.62 (minus) and 449.10. The repeaters are administered by the UARC repeater committee. Comments and questions may be directed to any committee member. The Lake Mountain repeater (146.76 minus offset) has Autopatch facilities on both the Orem exchange (covering Santequin to Lehi) and the Salt Lake City exchange

(covering Draper to Layton). The 449.10 repeater has Autopatch facilities into Salt Lake City only. Due to the volume of traffic, only mobiles should use this Autopatch. Autopatch use is open to all visitors to our area and to all club members. Non members who wish to use the Autopatch are encouraged to help with and maintaining a club membership.

THE MICROVOLT: The Microvolt is the official publication of the club. Deadline for submissions to The Microvolt is the 10th of each month prior to publication, except August. All submissions are welcome but what is printed and editing are the responsibility of the UARC board. Reprints are allowed with proper credits to THE MICROVOLT, UARC, and authors.

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YOUR NAME PLEASE: (not mandatory)

UARC Program Committee Input Sheet

Here are 33 topics that could be covered in our meetings. Many of them could be broken into several subtopics. These could be covered in depth, or just given an overview. What is YOUR interest in each of these proposed topics? Can you think of another oriented meeting topic someone might be interested in?

Please use the following Key to assign each topic an A, B, C, D, or E, according to your personal interest.

Thanks for your input.

A= Take Two or More Meetings to Cover (Whatever it takes)

B= Cover in One Meeting

C= Cover in Part of a Meeting

D= Skim over in a Meeting

E= Not Interested At All

1. { } Dxing equipment, supplies, procedures, tips, organized activities, Club potentials
2. { } Dfing equipment buy/build, procedures, supplies, tips, organized activities, Club potentials
3. { } Equipment: Handhelds, Mobile units, Base Stations-- compared abilities and advantages
4. { } Peripheral Equipment a HAM ought to know/have/use
5. { } Grag and Go Bag; containers, equipment, data, supplies, etc.
6. { } Emergency Radio Service Organization--which to join and why
7. { } How To Use AN SWR Meter
8. { } Antennas: Types, Purposes, Advantages, Build or Buy, Static/Lighting Protection, Portability, How to use build/buy, etc.
9. { } Organizing an emergency exercise.
10. { } Club Co-op buying of Equipment
11. { } What to look for (and look out for) at a Swap Meet
12. { } Magazine Critiques
13. { } Advancing your license: How to prepare for/Take Exams; Why Advance, Really?
14. { } Learning the Code
15. { } Creative Uses/boosting of a Handheld
16. { } Repeaters And Their Uses
17. { } Packet Radio: Getting Set Up, Placing Calls, Receiving Data, increasing Range, Printing
18. { } Linking to the Telephone System: How To, Regulations, Specifics
19. { } Setting Up Your New Rig For More Efficient Use
20. { } Reviews Of Reference Books
21. { } Low Power Rigs: Build/Buy/Use
22. { } Memorable Radio Experiences of HAMS you know.
23. { } Trouble-Shooting A Handheld: Common malfunctions of Handhelds, Making Repairs
24. { } Preparing for Flexibility in Using Various Power Sources: and How to do it for each
25. { } Building A Power Supply
26. { } Working With frequencies, Offsets, Duplex, Simplex, Skip, Line of Sight, etc.
27. { } Satellite Communications
28. { } Amateur TV
29. { } High Altitude Ballooning
30. { } Remote Control Aircraft
31. { } Scanning Emergency/Police/Fire/Military Bands: Scanners
32. { } Dealing with an EMP: Improvising a radio from scraps (w/o solid state devices)
33. { } Various Projects to Build Together in The Radio Room
34. { } Another Suggestion:
35. { } Another Suggestion: